

## CLAIMS

1. Access network for mobile terminals of the type which consists of a switch (VCX) designed to be linked on the one hand to at least one other external network and on the other hand to a local access network (RLA), the said local access network (RLA) being connected to a plurality of radio base stations (BR) each designed to enter into communication with mobile terminals (MT), each terminal (MT) receiving or sending user cells on a virtual channel identified by a virtual path identifier fixed once and for all and a virtual circuit identifier which is allocated to it at the time the call is established, and signalling cells on a virtual channel identified by a virtual path identifier and a virtual circuit identifier fixed once and for all, the switch (VCX) being designed to allocate, to each user channel, a virtual path identifier and a virtual circuit identifier and, to each signalling channel, a virtual path identifier equal to the virtual path identifier of the user circuit and a virtual circuit identifier fixed once and for all, characterised in that the local access network (RLA) is designed to provide the transport of the user cells and that of the signalling cells in channels whose virtual path identifiers are predetermined, and in that, when a mobile terminal (MT) enters into the coverage of the said network, a signalling channel is formed between the said terminal (MT) and the said switch (VCX), the switch (VCX) determining, to do this, a virtual path identifier (VPI\_u) which, associated with the predetermined signalling virtual circuit identifier, identifies the said signalling channel at the switch (VCX), and the local access network (RLA) determining, to do this, a virtual circuit identifier (VCI-sig), which, associated with the signalling virtual path identifier, identifies, at the said network (RLA), the said signalling channel, and at the time a communication is established, the switch (VCX) allocates, to the user channel providing the transport of the user cells of the said communication, a virtual circuit identifier (VCI\_dat) which is associated, at the switch (VCX), with the virtual path identifier (VPI\_u) already allocated to the signalling channel, at the local network (RLA), with the virtual path identifier provided for the transport of the user cells, and, at the terminal, with the predetermined virtual path identifier.

2. Access network for mobile terminals according to Claim 1, characterised in that means are provided for providing a one-to-one correspondence between the virtual path identifier (VPI\_u) assigned, at the switch (VCX), to the transport of the signalling cells and

the virtual circuit identifier (VCI\_sig) assigned, at the local network (RLA), to the transport of the same cells.

3. Access network for mobile terminals according to Claim 1, characterised in that the virtual circuit identifier (VCI\_sig) assigned, at the local network (RLA), to the transport of the same cells is equal to the virtual path identifier (VPI\_u) assigned, at the switch (VCX), to the transport of the signalling cells.

*Su4.* Access network for mobile terminals according to one of the preceding claims, characterised in that it includes an allocation table which maps, to each virtual path identifier VPI which the switch (VCX) is capable of allocating to a signalling channel, a group of virtual circuit identifiers VCI different from one VPI identifier to another, the said switch (VCX) allocating to the user channel, at the time it is formed, at least one virtual circuit identifier (VCI\_dat) from the group corresponding to the virtual path identifier (VPI\_u) of the said user channel.

5. Access network for mobile terminals according to one of the preceding claims, characterised in that it includes an adaptation unit for effecting the translation, both in the uplink direction and in the downlink direction, on the one hand of the virtual path identifiers respectively assigned, in the local network (RLA), to the user cells and the signalling cells, into the corresponding predetermined identifiers in the said terminal (MT), and vice versa and, on the other hand, of the virtual circuit identifier assigned, in the local network (RLA), to the signalling cells, into the corresponding predetermined identifier in the said terminal (MT), and vice versa.

6. Access network for mobile terminals according to one of the preceding claims, characterised in that it includes an adaptation server (ARX) for effecting the translation, both in the uplink direction and in the downlink direction, on the one hand of the virtual path identifier assigned, in the switch (VCX), to the user cells and the signalling cells, into the virtual path identifiers respectively assigned, in the said local network (RLA), to the said user and signalling cells, and vice versa and on the other hand of the virtual circuit identifier assigned, in the switch (VCX), to the signalling cells, into the identifier assigned, in the said local network, to the said signalling cells, and vice versa.

7. Access network for mobile terminals according to one of the preceding claims, characterised in that the said local access network (RLA) consists of a distribution network (RD) connected on the one hand to a set of concentrators (CTR) to which the radio base stations (BR) are linked in order to establish or release, according to a given marking, the

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virtual half-connections of the said base stations (BR) to the said distribution network (RD) and on the other hand cross-connection equipment (BRIDGE) providing connection of the distribution network (RD) to the switch (VCX), the said local access network (RLA) also having an adaptation server (ARX) through which the said signalling channel passes in order to be able on the one hand to intercept and interpret the signalling messages exchanged between the terminals (MT) and the switch (VCX) and then on the other hand, on the basis of the content of these signalling messages, to control the marking of the half-connections in the concentrators (CTR).

8. Access network for mobile terminals according to one of the preceding claims, characterised in that it includes a routing table in which, to each virtual path identifier capable of being allocated by the switch to a signalling channel, there corresponds the number of the terminal, the said table being updated according to the arrivals and departures of terminals into and out of the coverage of the access network for mobile terminals RLAM.